AMENDMENT

IN THE SPECIFICATION:

On page 7, lines 33-34, please amend the paragraph as follows:

-- Fig. 14(a), Fig. 14(b) and Fig. 14(c) ~~is a schematic view showing the~~ schematically show the steps of the transfer operation of the transfer mechanism. --

On page 2, lines 14-28, please amend the paragraph as follows:

-- The teaching accuracy depends on the skill of the operator. Thus, the teaching work is sometimes time-consuming, or teaching of target points with ~~sufficiently~~ sufficient accuracy is sometimes impossible. In addition, a dummy wafer, which is placed at a predetermined place within the holder, is not transferred in every process but is continuously placed at the predetermined place for a long time. Thus, the dummy wafer is likely to be displaced due to vibration or the like. Under the circumstances, the position of the dummy wafer is regularly corrected so that the dummy wafer is returned to its right position. It is difficult to perform the correction rapidly and accurately by means of a conventional transfer mechanism. If a wafer is not held at an appropriate position within the holder, for example, if the wafer sticks out of the holder, an accident such as fall or damage of the wafer may possibly occur. --

On page 18, lines 5-35, please amend the paragraph as follows:

-- When performing automatic teaching, the control unit 47 recognizes (record or store) the target position (target point) by executing first, second and third steps mentioned below. In the first step, as shown in FIG. 11, the control unit 47 operates the drive system of the transfer mechanism 21 relating to the movement of the base 25 in the vertical-axis (z-axis) direction to find positions (i.e., the upper and lower end of the first detection target part 49) at which the detection signal (ON/OFF) of the first sensor is reversed, thereby to deduce the position of the center of the target member 44 (i.e., the position of the center of the first detection target part 49),with respect to the vertical direction based on the encoder values obtained at two signal-reversing positions. In the second step, the control unit 47 operates the drive system of the

transfer mechanism 21 relating to the movement of the base 25 in a direction about the turning axis (.theta.-axis) to find positions (i.e., the left and right end of the first detection target part 49) at which the detection signal (ON/OFF) of the first sensor is reversed, thereby to deduce the position of the center of the target member 44 with respect to the turning direction (i.e., the position of the center of the first detection target part 49 with respect to right-and-left direction) based on the encoder values obtained at two signal-reversing positions. In the third step, as ~~show~~ shown in FIG. 12, the control unit 47 operates the middle substrate support device 20a in the anteroposterior axis (x-axis) direction to find positions (i.e., the ~~frond~~ front and rear end of the second detection target part 50) at which the detection signal (ON/OFF) of the second sensor 40 is reversed, thereby to deduce the position of the center of the target member 44 with respect to the anteroposterior direction (i.e., the position of the center of the second detection target part 50 with respect to the anteroposterior direction) based on the encoder values obtained at two signal-reversing positions. --

On page 21, line 11 to page 22, line 5, please amend the paragraph as follows:

-- As described above, the vertical heat treatment system 1 according to the present invention includes: the heat treatment furnace 3; the holder 9 that is loaded and unloaded into and from the heat treatment furnace while the holder holds a plurality of wafers W which are arranged at multiple ~~level~~ levels and spaced at vertical intervals; a transfer ~~mechanism 25~~ mechanism 21 that transfers wafers W between the holder 9 and a container 16 adapted to hold a plurality of wafers W at predetermined intervals, the transfer mechanism including a base 25 adapted for vertical movement and turning movement, and a plurality of substrate holding devices 20, each adapted to support a wafer W, mounted to the base 25 so as to be movable anteroposteriorly; a target member 44 to be placed at a target position, in the holder 9 or the container 16, to which a wafer W object is to be transferred; a first sensor 45, attached to the base 25, that emits a light beam such as laser beam directed toward a direction in which the substrate support devices 20 move, and detects the target member 44 upon receipt of a reflected light of the light beam; a second sensor 40, attached to two tip end portions of the substrate support device 20a, that detects the target member 44 upon interruption of a light beam traveling between

the tip end portions by the target member 44; and a control unit 47 that deduces the target position based on detection signals of the first sensor 45 and the second sensor 40 and encoder values of drive systems of the transfer mechanism 21 associated with the detection signals, and recognizes the target position thus deduced. Due to the above arrangement, teaching of the target position of operation (i.e., target point) of the transfer mechanism can be performed automatically, and variations in teaching accuracy due to human errors can be prevented. --